Patent claims

1. Method for the detection of bacteria of the genus *Legionella* by means of a sandwich hybridization procedure characterized as follows:
   a) For the genus specific detection of *Legionella* an oligonucleotide probe of the sequence 5'-CCTCCTCCCCACTGAAAGT-3' is used as detection probe and an oligonucleotide probe of the sequence 5'-CACTGTATGTCAAGGGTAGG-3' is used as capture probe.
   b) For the species specific detection of *Legionella pneumophila* an oligonucleotide probe of the sequence 5'-ATCTGACCGTCCCAGGTT-3' is used as capture probe and an oligonucleotide probe of the sequence 5'-TTCGCCGCCCTCTGTATCG-3' is used as detection probe.
   c) For the species specific detection of *Legionella feelei* an oligonucleotide probe of the sequence 5'-GCGCCACTAACCTCATTAT-3' is used as capture probe and an oligonucleotide probe of the sequence 5'-TATACAACCACCTACGCACC-3' is used as detection probe.
   d) For the species specific detection of *Legionella jordanis* an oligonucleotide probe of the sequence 5'-CCACTCCTCCCCACTGAAAG-3' is used as capture probe and an oligonucleotide probe of the sequence 5'-CTTACGGTCCCCAGCTTTTT-3' is used as detection probe.

   All hybridizations are performed at temperatures between 50 and 55°C.
2. Method according to patent claim 1 characterized thereby, that for a species specific detection of different *Legionella* species the oligonucleotide probes used as the respective capture and detection probes are exchangeable against each other.
3. Method according to patent claim 1 characterized thereby, that the detection can be performed with combinations of oligonucleotide probes for a genus and a species specific detection.